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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,661	12/20/2001	Duane S. Treybig	7560 ONES	1640
7590 10/05/2004			EXAMINER	
Kelly L. Cummings ONDEO Nalco Company Patent & Licensing Department ONDEO Nalco Center Naperville, IL 60563-1198			METZMAIER, DANIEL S	
			ART UNIT	PAPER NUMBER
			1712	
DATE MAILED: 10/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/034,661

Applicant(s)

TREYBIG ET AL.

Examiner

Daniel S. Metzmaier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 Dec 2001; 11 June 2003; & 07 July 200.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 51-59 is/are allowed.
- 6) ☒ Claim(s) 1-16, 28, 29 and 41-50 is/are rejected.
- 7) ☒ Claim(s) 17-27 and 30-40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/11/03 & 7/7/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

Claims 1-59 are pending.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-14 and 41-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 sets forth structures, which may include ethyleneoxy groups and propyleneoxy groups, defining the repeating groups with the subscript "n". The claim further sets forth the ratio of ethyleneoxy groups to propyleneoxy groups is 70:30. It is unclear how the ratio can be 70:30 when R is CH<sub>3</sub> and n is a finite value.

In claim 1, the triglycidyl ether of aliphatic triols and tetraglycidyl ethers of aliphatic polyols suggest the polymer compositions include nonlinear polymers.

In claim 3, it is unclear how the further capping monomer differs from the amines set forth in claim 1.

In claim 41, R, R<sub>2</sub>, R<sub>3</sub>, R<sub>6</sub> and R<sub>7</sub> defining divalent groups should refer to said groups as "alkylene groups" rather than "alkyl groups".

Furthermore, claim 41 sets forth at least one first amine having two reactive hydrogens having chemical structures wherein said structures may contain reactive hydrogens and suggest compositions resulting in non-linear polymers. See at least the hydroxy, halo, and cyano substituted groups such as R, R<sub>2</sub>, R<sub>3</sub> and Z. It is unclear

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what is intended by the characterization "amine having two reactive hydrogens" and the scope of the compounds intended therefrom.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by McCoy et al, US 4,396,499. McCoy et al (example IV) discloses the polymeric reaction product of Jeffamine® M-360 with EPON® 828. Although the claims set forth an amine capping group, said amine capping group is indistinct from the Jeffamine® M-360 as the first amine-containing monomer.

5. Claims 1 and 15-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Arora et al, US 5,648,409. Arora et al (examples; claims; column 9, lines 39 et seq ; column 13, lines 9-14) discloses the polymeric reaction product of Jeffamine® M-2070 (ethylene oxide/propylene oxide ratio = 70/30) with a polyepoxide. Although the claims set forth an amine capping group, said amine capping group is indistinct from the Jeffamine® M-2070 as the first amine-containing monomer.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCoy et al, US 4,396,499. McCoy et al discloses polymeric reaction products as set forth in the anticipation rejection above.

McCoy et al differs from claims 28 and 29, wherein the reactive epoxide is an epoxidized olefin having two epoxides groups.

McCoy et al (column 2, lines 1-9 and 25-34) teaches the epoxides may include diepoxides having terminal epoxides groups linked by an aliphatic group. Said structure reads on diepoxides derived from a epoxidizing a diolefin. Since it is the product under consideration rather than the method said product is made, claims 28-29 are indistinct from the diepoxides as characterized in column 2, lines 1-9 and 25-34, of the McCoy et al reference.

It would have been obvious to one having ordinary skill in the art at the time of applicants' invention to employ diepoxides as taught in the McCoy et al reference as

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functional equivalents.

9. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arora et al, US 5,648,409. Arora et al discloses polymeric reaction products as set forth in the anticipation rejection above.

Arora et al differs from claims 2 and 3 in the incorporation of a second amine-containing monomer having two reactive hydrogens and a tertiary amine group.

Arora et al (column 13, lines 9-14) teaches usefull accelerators for amine curing agents include tertiary amines. It would have been obvious to one having ordinary skill in the art at the time of applicants' invention to employ further amines having tertiary amine groups as taught in the Arora et al reference as functional equivalents.

***Allowable Subject Matter***

10. Claims 51-59 allowed.

11. Claims 17-27 and 30-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 41-50 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

13. Claims 4-14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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14. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or fairly suggest the polymer compositions as claimed or the methods of preparing.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (703) 308-0451. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Daniel S. Metzmaier  
Primary Examiner  
Art Unit 1712

DSM